electrolytic room placed between the both porous water-purifying members, wherein the electrolytic room is placed in the approach route of water of the porous water-purifying member.

* In each claim, an electrolytic water purifier characterizes in that the porous water-purifying members are made of a material mainly composed of activated carbon and binding agent, pressure formed and calcined.

* In each claim, an electrolytic water purifier characterizes in that the porous water-purifying members have a plurality of pores whose average diameter is 0.1-20 micron, especially 0.3-15 micron, more specifically 0.3-10 micron.

* In each claim, an electrolytic water purifier characterizes in that the porous water-purifying members are block shape forming with the porosity of from 15% to 65%, having gas penetration resistance, wherein gas pressure of the annular clearance being an electrolytic room can be easily increased due to the gas produced in the annular clearance being an electrolytic room. Since the porous water-purifying members have many pores and gas penetration resistance, the pressure in the electrolytic room is easily increased, the gas in the annular clearance being an electrolytic room can easily enter the porous water-purifying members.

* In each claim, an electrolytic water purifier characterizes in that the porous water-purifying members are cylindrical shape with a center hole, wherein a metal center pipe is arranged in the center hole of the porous water-purifying members substantially coaxially with ring shape clearance, when voltage is applied to the porous water-purifying members, the center pipe can be polarized and the clearance between the outer wall surface of the center pipe and the inner wall surface of the cylindrical portion of the porous water-purifying members can function as an electrolytic room.

* In each claim, an electrolytic water purifier characterizes in that as voltage is applied to the porous water-purifying members, the inner wall surface of the cylinder can be polarized and the clearance between the outer wall surface of the porous water-purifying members and the inner wall surface of the center pipe can function as an electrolytic room.

* In each claim, an electrolytic water purifier characterizes in that the feeder terminals are arranged in the same side of the porous water-purifying members. It has advantages in feeding to the porous water-purifying members.

* In each claim, an electrolytic water purifier characterizes in that the voltage applied to the porous water-purifying members (the alternating current or the direct current voltage) is in the range of 1.5-25 volts, especially 2-20 volts.

* In each claim, an electrolytic water purifier characterizes in that the electric current is 10-100 milliampere in the potential differences between the porous water-purifying members that the voltage is applied.

* In each claim, an electrolytic water purifier characterizes in having a display, which indicates the amount of hydrogen produced in the container. The users can grasp the amount of hydrogen produced in the container.

* In each claim, an electrolytic water purifier characterizes in having a display, which indicates oxidation-reduction potential by calculating the amount of hydrogen produced in the container from the pH value.

* In each claim, an electrolytic water purifier characterizes in having a check valve to keep the pressure in the electrolytic room high, when pressure in the container has become higher than the open setting pressure of the check valve due to the gases generated by electrolysis,

the check valve opens, so purified water can be discharged from the discharging member, whereas when pressure in the container has become lower than the open setting pressure of the check valve, the check valve is closed. It enables to maintain the pressure in the container high.

* An electrolytic water purifier comprises a container having a water supplying room which is divided with inner walls; a porous water-purifying member having many pores with water purifying ability, disposed in the water supplying room of the container; a water supplying portion that supplies water to the water supplying room of the container; a discharging portion that discharges the purified water with the porous water-purifying member in the water supplying room of the container to outside the container,

wherein the porous water-purifying member is divided into at least two porous water-purifying members to form the annular clearance, wherein the first porous water-purifying member is connected to the first feeder terminal to be as the first electrode as well as the second porous water-purifying member is connected to the second feeder terminal to be as the second electrode, wherein by applying voltage to the first and second electrodes, water in the annular clearance is electrolyzed and the produced gas is adsorbed to the pores of the porous water-purifying member.

* In each claim, an electrolytic water purifier characterizes in that the amount of discharging water per unit hour of the porous water-purifying member arranged outside is larger than that of the porous water-purifying member arranged inside.

* In each claim, an electrolytic water purifier characterizes in that the porous water-purifying member arranged outside is more precise and the amount of discharging water per unit hour is smaller than that of arranged inside.

What is claimed is:

1. An electrolytic water purifier comprising: a container having an inner wall surface and a water supplying room formed of the inner wall surface;

a porous water-purifying member having a plurality of pores with water purifying ability, disposed in said water supplying room of said container; and

a water supplying portion placed in said container and supplying water to said water supplying room of said container;

a discharging portion placed in said container and discharging water purified with said porous water-purifying member of the water supplying room of said container to outside the container;

wherein said porous water-purifying member is divided in a radial direction into at least a first porous water-purifying member and a second porous water-purifying member to form an annular clearance, and

the first porous water-purifying member is connected to a first feeder terminal to be as a first electrode and the second porous water-purifying member is connected to a second feeder terminal to be as a second electrode, and

by applying voltage to said first and second electrodes, water in said annular clearance is electrolyzed to produce gas to be adsorbed to the pores of said porous water-purifying member.

2. The electrolytic water purifier set forth in claim 1, wherein said first electrode comprises a first voltage applying portion which applies the alternating current or the direct current to said first electrode and said second electrode comprises a second voltage applying portion which applies the alternating current or the direct current to said second electrode.

3. The electrolytic water purifier set forth in claim 2, wherein frequency of the alternating current is 10-500 Hz.

4. The electrolytic water purifier set forth in claim 2, wherein the alternating current is biased by adding the direct current components to the alternating current components.

5. The electrolytic water purifier set forth in claim 1, wherein said annular clearance has a ring shape.

6. The electrolytic water purifier set forth in claim 1, wherein the width of said annular clearance is 30 mm or less.

7. The electrolytic water purifier set forth in claim 1, wherein the base material of said porous water-purifying member is activated carbon.

8. The electrolytic water purifier set forth in claim 1, wherein said porous water-purifying member is formed of a permeable sintered block by sintering a formed body containing activated carbon and a binding agent.

9. The electrolytic water purifier set forth in claim 1, wherein said first porous water-purifying member is cylindrical shaped, having an outer surface and an inner surface, and said second porous water-purifying member is placed in the outer side of said first porous water-purifying member coaxially, cylindrical shaped and having an outer surface and an inner surface, and

said annular clearance is formed by the outer surface of said

first porous water-purifying member and the inner surface of said second porous water-purifying member.

10. The electrolytic water purifier set forth in claim 1, wherein said first porous water-purifying member is cylindrical shaped, having an outer surface and an inner surface, and said second porous water-purifying member is placed in the outer side of said first porous water-purifying member coaxially, cylindrical shaped and having an outer surface and an inner surface, and wherein

said annular clearance is formed by the outer surface of said first porous water-purifying member and the inner surface of said second porous water-purifying member, and wherein

comprising a center pipe arranged coaxially in the space divided by the inner surfaces of said first porous water purifying member, having a surrounding wall forming a passage water purified with said second porous water-purifying member and said first porous water-purifying member runs, and a plurality of holes formed in said surrounding wall and connected through to said passage, and

said passage of said center pipe is connected through to said discharging portion in order to supply said purified water to said discharging portion.

11. The electrolytic water purifier set forth in claim 1, wherein said porous water-purifying member is cylindrical shaped, and water supplied from said water supplying portion to said water supplying room runs inside of said second porous water-purifying member and said first porous water-purifying member along a centripetal direction of said porous water-purifying members.

12. The electrolytic water purifier set forth in claim 1, wherein

a clearance maintaining element is disposed in said container to keep the clearance width of said annular clearance between said first porous water-purifying member and said second porous water-purifying member.

13. The electrolytic water purifier set forth in claim 1, wherein said first porous water-purifying member is tubular shaped, having a shaft end surface, and said second porous water-purifying member is tubular shaped, having a shaft end surface, and

a clearance maintaining element is disposed in said container to keep the clearance width of said annular clearance between said first porous water-purifying member and said second porous water-purifying member, and

a seal cap is arranged to close said shaft end surfaces of said first porous water-purifying member and said second porous water-purifying member, and

wherein said seal cap comprises said clearance maintaining element to keep the clearance width of said annular clearance between said first porous water- purifying member and said second porous water-purifying member.

14. The electrolytic water purifier set forth in claim 1, wherein a valve element is equipped in said container to increase a gas-adsorbing amount in said porous water-purifying members by maintaining a gas pressure in said water supplying room.

15. The electrolytic water purifier set forth in claim 1, wherein said container is tubular shaped, having an inner surface, said porous water-purifying member is tubular shaped, having an outer surface, and a water supplying clearance is formed in the outside of the outer surface of said porous water-purifying member by said inner surface

of said container and said outer surface of said porous water-purifying member, said water supplying clearance is connected through said water supplying portion.

16. The electrolytic water purifier set forth in claim 2, wherein said first voltage applying portion is a first feeder terminal, formed of conductive material, which is electrically conductive to said first porous water-purifying member, and said second voltage applying portion is a second feeder terminal, formed of conductive material, which is electrically conductive to said second porous water-purifying member.

17. The electrolytic water purifier set forth in claim 2, wherein said first voltage applying portion is a first feeder terminal, formed of conductive material, which is electrically conductive to said first porous water-purifying member, and said second voltage applying portion is a second feeder terminal, formed of conductive material, which is electrically conductive to said second porous water-purifying member, and

said first porous water-purifying member is placed inside and said second porous water-purifying member is placed outside coaxially,

said first feeder terminal is set to be as anode (+ pole) and the second feeder terminal is set to be as cathode (- pole).

18. The electrolytic water purifier set forth in claim 2, wherein said first voltage applying portion is a first feeder terminal, formed of conductive material, which is electrically conductive to said first porous water-purifying member, and said second voltage applying portion is a second feeder terminal, formed of conductive material, which is electrically conductive to said second porous water-purifying

member, and

said first porous water-purifying member is placed inside and said second porous water-purifying member is placed outside coaxially,

said first feeder terminal is set to be as cathode (- pole) and the second feeder terminal is set to be as anode (+ pole).

19. The electrolytic water purifier set forth in claim 15, wherein at least one of said first feeder terminal and said second feeder terminal bites into the inside of said porous water-purifying member for improving conductivity.

20. The electrolytic water purifier set forth in claim 16, wherein at least one of said first feeder terminal and said second feeder terminal pressure contacts on the surface of said porous water-purifying member with an energizing member for increasing conductivity.

21. The electrolytic water purifier set forth in claim 16, wherein said porous water-purifying member has an upper surface and at least one of said first feeder terminal and said second feeder terminal pressure contacts on the upper surface of said porous water-purifying member.

22. The electrolytic water purifier set forth in claim 16, wherein said first porous water-purifying member and said second porous water-purifying member are placed coaxially, cylindrical shaped, having shaft end surfaces,

at least one of said first feeder terminal and said second feeder terminal spreads over in a circular shape along a circumferential direction in the shaft end surface of said porous water-purifying

member to increase a conductive area.

23. The electrolytic water purifier set forth in claim 16, wherein said first porous water-purifying member and said second porous water-purifying member are placed coaxially, cylindrical shaped, having shaft end surfaces,

at least one of said first feeder terminal and said second feeder terminal spreads over in a continuous ring shape along the circumferential direction in the shaft end surface of said porous water-purifying member to increase a conductive area.